

ABSTRACT

A performance enhancing and force absorbing dental appliance adapted to lie within the mouth of an athlete consists of an occlusal posterior pad made of triple composite material with a base having a top layer of impressionable material, an intermediate layer of hard material and a somewhat impressionable bottom layer, engageable with the occlusal surfaces to space apart the upper and lower teeth, to absorb shock and clenching stress. An adjustable arch adapted to expand and contract to be molded to the palate is provided connecting the posterior pads together within the mouth and out of the way of the tongue to maintain the position of the occlusal posterior pads within the mouth during use and to prevent loss of the pads such as by swallowing. An optional expandable stiffener may be embedded in the arch. Optional protrusions extend from the bottom layer through the intermediate layer and top layer to engage the central fossae of the molar teeth.